Appendix H: Additional Information on Water Quality Standards

Aluminum and Iron aquatic life criteria for Indiana's non-Great Lakes Basin waters have not been promulgated into Indiana's water quality standards (327 IAC, Article 2). However, provisions found at 327 IAC 2-1-8.2 and 2-1-8.3 clarify the procedures for determining aquatic life criteria for non-Great Lakes Basin waters in Indiana. Additionally, provisions at 327 IAC 2-1-13 allow for site-specific modifications to criteria as long as the modified criteria are protective of designated uses and aquatic life or human health. In March 2005, site-specific Aluminum criteria for Indiana warm waters were calculated by IDEM utilizing procedures in the rules cited above. The national WQC for Aluminum were based on acute toxicity data from 14 Genera, including cold water species. However, Aluminum water quality criteria (WQC) for Indiana warm waters were derived by eliminating toxicity data for the cold water species that are not representative of warm waters while taking into consideration acceptable data that were available at the time of criteria derivation. Therefore, the resulting acute and chronic criteria of 993 µg/L and 174 µg/L, respectively, are less restrictive than EPA's national acute and chronic criteria of 748 µg/L and 87 µg/L, respectively.

In June 1997, IDEM calculated WQC for Iron according to the provisions in Indiana Rule 327 IAC 2-1-8.2 and 2-1-8.3. The available acute toxicity data satisfied Indiana's 5 families' data requirements for resident species. Therefore, utilizing the procedures described in the above mentioned provisions, the acute and chronic WQC for non Great Lakes Basin waters were determined to be 2744 µg/L and 2495 µg/L, respectively.

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